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Remarks

Claims 1, 8, 16 and 20 have been amended to more clearly define the invention. Claims 2, 3 and 7 have been deleted.

The present invention relates to distributing traffic through paths in the IP domain. The nature of IP traffic is particularly bursty and is thus difficult to distribute or allocate. The present invention solves this problem by using information readily available in the IP packages, namely the flow labels and the hash functions to enable distribution of the traffic through the various paths in the network. There is no measurement of the network or the paths, or the traffic flowing through paths. The method employed in the present invention is simply a method of using readily available information in the form of the flow labels and the hash functions to distribute over the number of available paths the packets that are to be transmitted.

There is no need for any complex equipment for measuring traffic flow, there is no need for any additional resources to be made available when traffic flow is predicted to be too high for the paths availability, there is merely determination of the hash functions and the flow labels to enable distribution of the packets.

In Chuah et al (US 6,408,001 B; June 18, 2002) there is a post facto creation of paths which creates new tunnels when the prediction is that the IP traffic is too great for the number of paths currently available. This patent does not teach using the flow labels and the hash functions to distribute the packet to the available paths only. Instead it looks to see how many packets it has and creates new paths or tunnels if the numbers of packets look too big for the available path, hence there is a considerable amount of measurement associated with this method. The present invention does none of this type of measurement or post facto creation of paths.

Referring now to Soirinsuo et al (US 6,084,855; July 04, 2000), this relates to a method of measuring the available paths and the traffic that is intended to flow there

through and then allocating priorities to the traffic so that the traffic is transmitted in accordance with the allocated priorities. There are considerable methodologies relating to measurement analysis of the data allocation of priorities, determination of priorities and various other attributes which are necessary in this invention to ensure that allocation of the data to the relevant path can be made. There is no such measurement in the present invention.

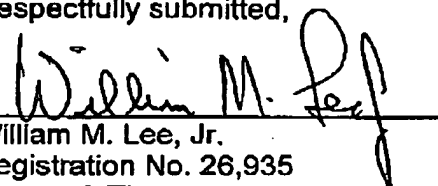
As a general point, as previously indicated, IP traffic is particularly bursty, in other words there are many peaks and troughs in the flow of packets through the network or through a particular path. The measurement techniques required to determine the traffic in a particular path are thus incredibly complicated. In addition, since the variation is occurring very quickly, no sooner has the measurement been made than the circumstances have significantly changed and the measurements are useless. Accordingly from a practical point of view, measuring traffic flow and then allocating or creating paths to deal with the traffic flow is complex and not very effective. On the other hand the present invention is very simple and requires no measurement techniques and merely distributes the available traffic through the available paths. In order to ensure that the data therein is kept as integral as possible, uses hash functions and flow labels to achieve this. Neither reference suggests this, nor could their combination.

In the light of the amendments to the claims and the discussions above, the applicant believes that claim 1 and all other corresponding independent claims are novel and non-obvious. It therefore follows that all dependent claims depending from those are also allowable and thus the Examiner's rejection is respectfully traversed.

Favorable reconsideration is urged.

October 28, 2004

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line.

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